

Appl. No. 10/085,175
Amdt. Dated June 5, 2004
Reply to Office Action March 05, 2004

Amendments to the Drawings

All of the prior figures did not conform to 37 CFR 1.84 and were redrawn to eliminate nonconforming numbering, circles and text.

(Revised): Fig. 1 has been revised to meet patent office specifications for numbering, circles around numbers and text have been removed. The hot water tank has been cross-sectioned to accurately show the heat exchanger. The original Figure 1 showed a double wall heat exchanger which is more clearly shown in the cross section. (Revised Sheet Provided in Appendix)

(Revised): Fig. 2 has been revised to meet patent office specifications for numbering, circles around numbers and text have been removed. The pressurized reservoir was amended to show the cooling fins consistently on Figures 2 and 4. (Revised Sheet Provided in Appendix)

(Revised): Fig. 3 has been revised to meet patent office specifications for numbering, circles around numbers and text have been removed. The inset was removed and placed in a new Fig. 5 (Revised Sheet Provided in Appendix)

(Revised): Fig. 4 has been revised to meet patent office specifications for numbering, circles around numbers and text have been removed. The pressurized reservoir was amended to show the cooling fins on the reservoir, not as a folded tube radiator. (Revised Sheet Provided in Appendix)

(New): Fig. 5 has been revised to meet patent office specifications for numbering, circles around numbers and text have been removed. This figure was an inset in Fig. 3 and has now been made a separate figure. (Revised Sheet Provided in Appendix)

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Appendix

REPLACEMENT DRAWINGS

FIG. 1 is a perspective view of the pressurized loop solar collector system, including the fluid loop, the solar collector, the hot water tank heat exchanger, the fluid pump, fluid radiator, pressurization, overflow/recovery system, air elimination system and controller. The boiling-activated radiator over-temperature and pressure activated over-temperature systems are shown schematically.

FIG. 2 is a view of the boiling-activated radiator Solar collector temperature limiting system and fluid pressurization, overflow/recovery system.

FIG. 3 is a pressure-activated solar collector over-temperature control system, which upon loop boiling opens dampers in the solar collector to allow air-cooling.

FIG. 4 shows the details of a gas/liquid separator for the boiling-activated radiator solar collector over-temperature system, which upon boiling forces steam and fluid from the main fluid loop into a liquid to air heat exchanger, a radiator, where it is cooled.

FIG. 5 is a plot of air valve position versus pressure in the solar collector fluid loop.

ANNOTATED MARKED UP-DRAWINGS WHICH HAVE BEEN REPLACED

Old FIG. 1 is a perspective view of the pressurized loop solar collector system, including the fluid loop, the solar collector, the hot water tank heat exchanger, the fluid pump and controller and the over-pressure and pressure-activated over-temperature systems.

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Old FIG. 2 is a view of the over-pressure system and its associated fluid recovery system, with the external fluid recovery system.

Old FIG. 3 is a pressure-activated solar collector over-temperature control system, which opens dampers in the collector to let heat out when the fluid in the loop boils and raises the loop pressure.

Old FIG. 4 is a boiling-activated solar collector over-temperature control system, which forces fluid from the main fluid loop into a liquid to air heat exchanger/radiator, to let heat out of the fluid loop when the fluid in the loop boils

Replacement Sheet

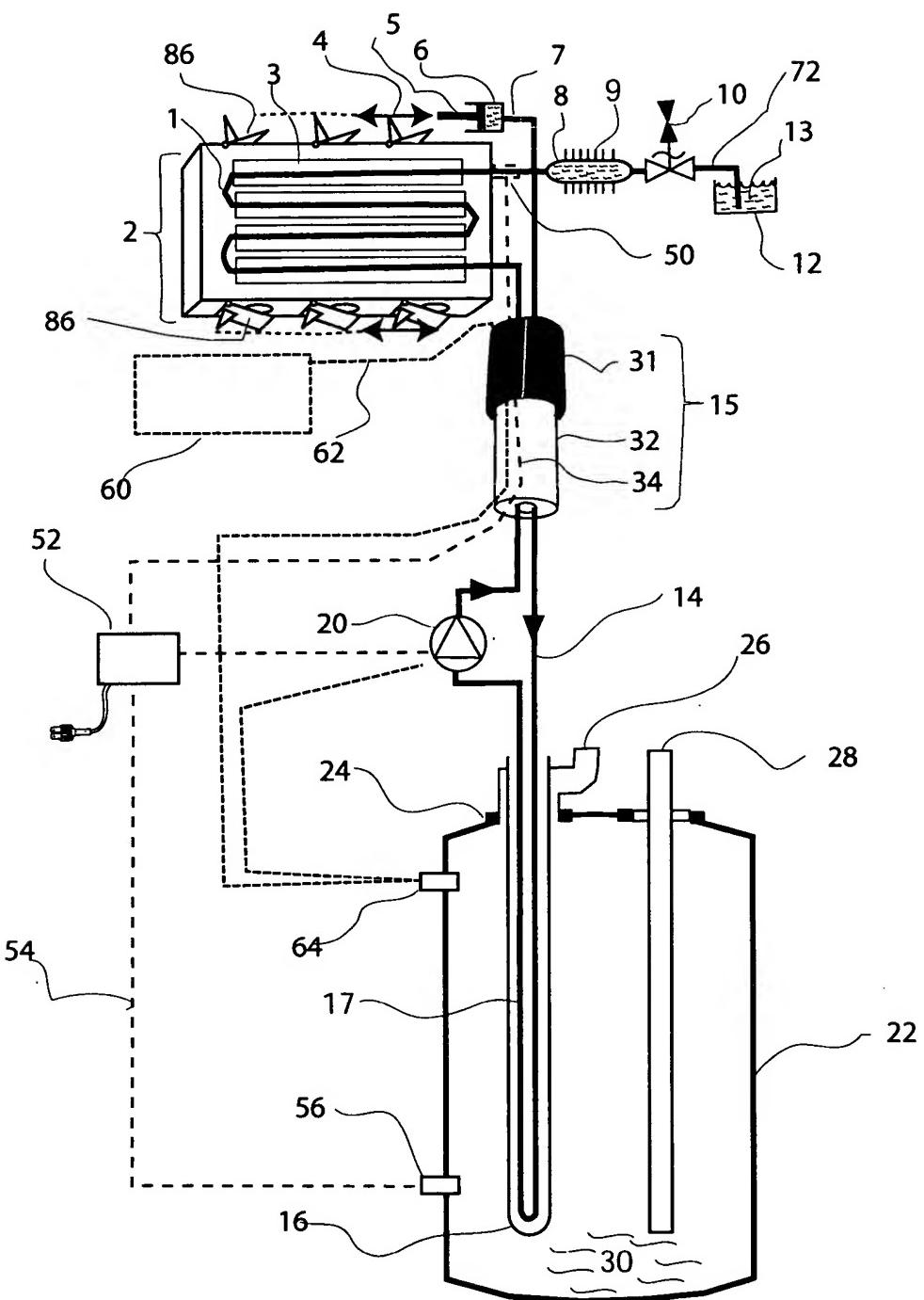


FIG. 1

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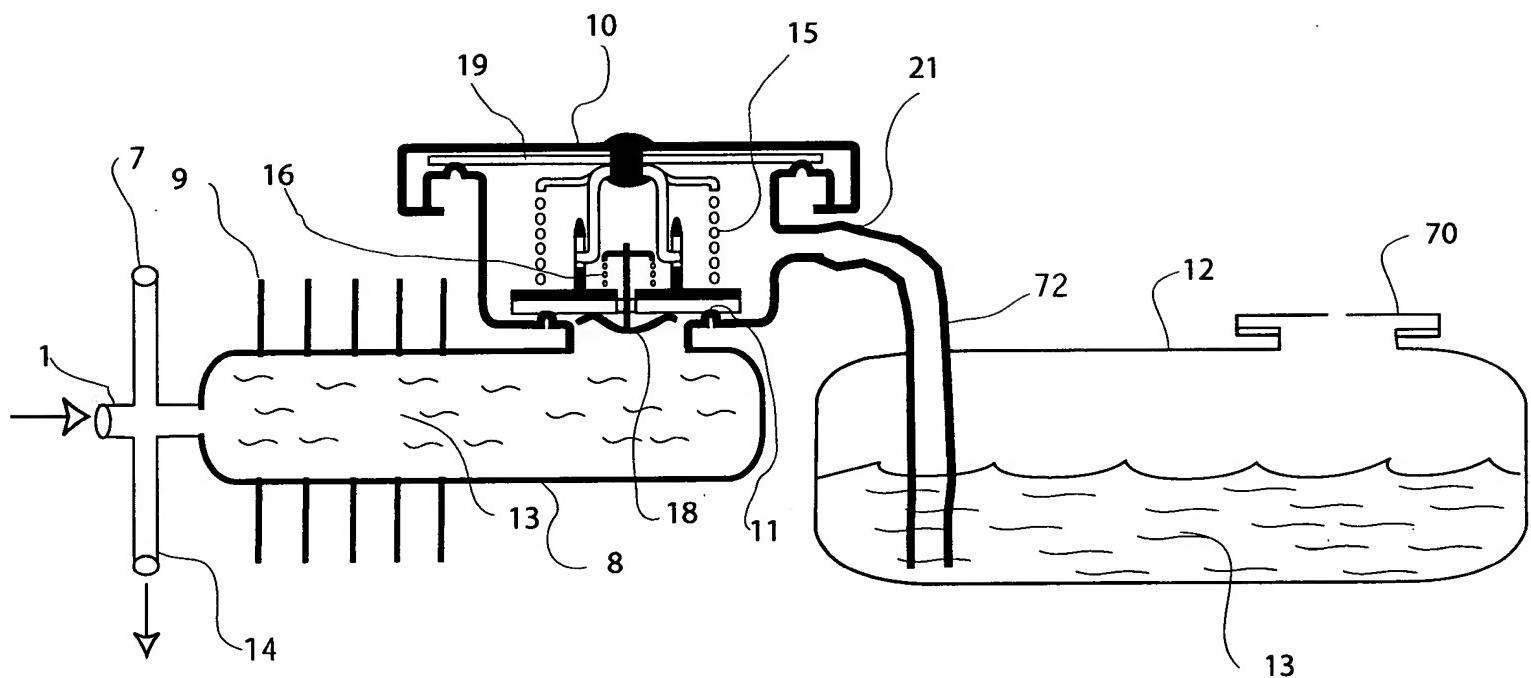


FIG. 2

400 f 47

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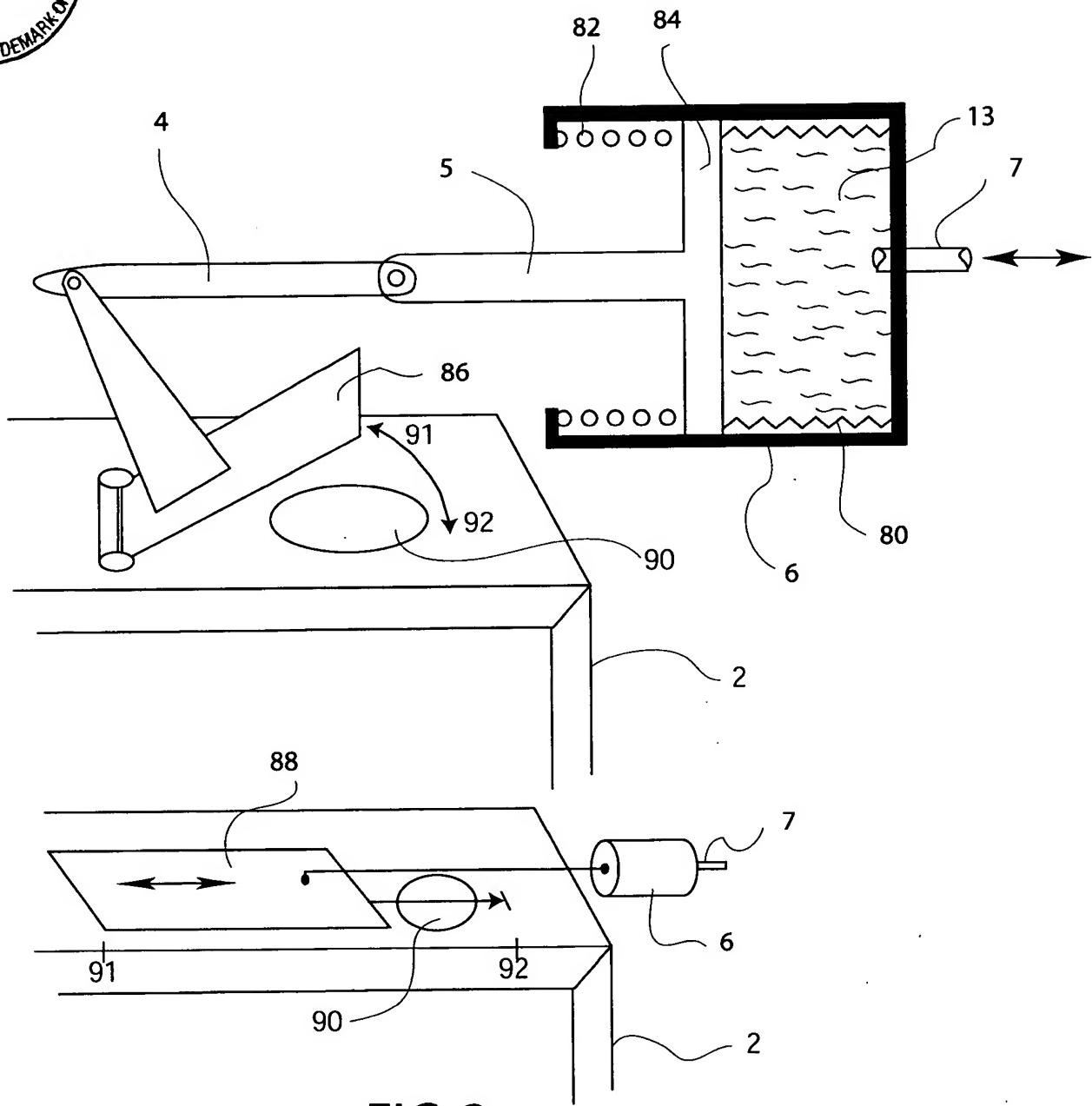


FIG. 3

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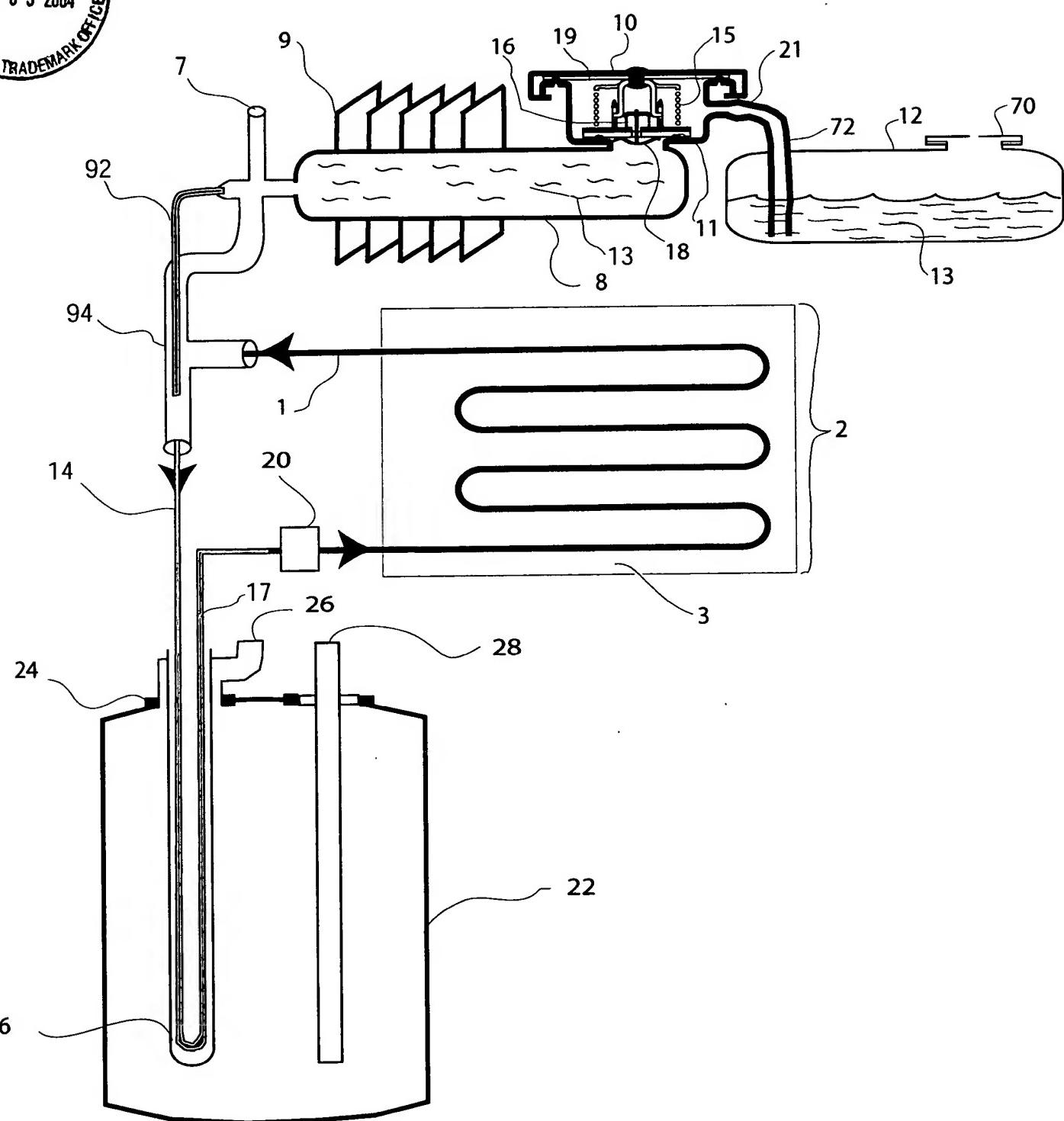


FIG. 4

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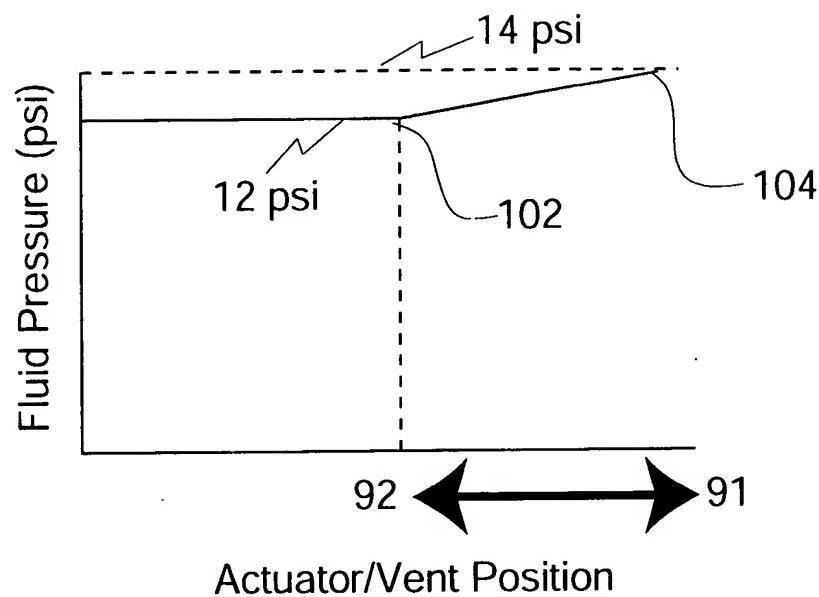


FIG. 5